

Exhibit P-40, BUDGET ITEM JUSTIFICATION								DATE: February 2004																																							
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/APN-5 Aircraft Modifications						P-1 ITEM NOMENCLATURE JPATS Series Modification																																									
Program Element for Code B Items:						Other Related Program Elements																																									
	Prior Years	ID Code	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total																																				
QTY																																															
COST (In Millions)		A		0.5	0.6	0.7	1.6	1.3	1.5	24.7	31.0																																				
<p>This line item funds modifications to T-6A aircraft. The T-6A Texan II is a tandem-seat, turboprop aircraft derivative of the Pilatus PC-9 aircraft powered by a single Pratt & Whitney PT6A-68 engine. It serves as the aircraft component of the JPATS integrated primary pilot training system which replaces the T-34C primary training aircraft. The overall goal of the modifications budgeted in FY 2005 is to correct discrepancies and deficiencies discovered after delivery of the aircraft, maintain joint configuration with Air Force aircraft and the joint program. It also incorporates major upgrades to the aircraft cockpit, navigation system, and aircrew life support system (ALSS).</p> <p>The specific modifications budgeted and programmed are:</p> <p style="text-align: center;">(TOA, \$ in Millions)</p> <table border="1"> <thead> <tr> <th>OSIP No.</th> <th>Description</th> <th>Prior Years</th> <th>FY 2003</th> <th>FY 2004</th> <th>FY 2005</th> <th>FY 2006</th> <th>FY 2007</th> <th>FY 2008</th> <th>FY 2009</th> <th>To Complete</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>11-04</td> <td>JPATS Correction of Deficiencies</td> <td></td> <td></td> <td>0.5</td> <td>0.6</td> <td>0.7</td> <td>1.6</td> <td>1.3</td> <td>1.5</td> <td>24.7</td> <td>31.0</td> </tr> <tr> <td></td> <td>Total</td> <td></td> <td></td> <td>0.5</td> <td>0.6</td> <td>0.7</td> <td>1.6</td> <td>1.3</td> <td>1.5</td> <td>24.7</td> <td>31.0</td> </tr> </tbody> </table> <p>Note: Totals may not add due to rounding.</p>												OSIP No.	Description	Prior Years	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total	11-04	JPATS Correction of Deficiencies			0.5	0.6	0.7	1.6	1.3	1.5	24.7	31.0		Total			0.5	0.6	0.7	1.6	1.3	1.5	24.7	31.0
OSIP No.	Description	Prior Years	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total																																				
11-04	JPATS Correction of Deficiencies			0.5	0.6	0.7	1.6	1.3	1.5	24.7	31.0																																				
	Total			0.5	0.6	0.7	1.6	1.3	1.5	24.7	31.0																																				

Exhibit P-3a	Individual Modification	
MODIFICATION TITLE:	JPATS Correction of Defecencies (OSIP 11-04)	
MODELS OF SYSTEMS AFFECTED:	T-6A	TYPE MODIFICATION: PS SAFETY
<p>DESCRIPTION/JUSTIFICATION:</p> <p>* Corrections to discrepancies found during testing and evaluation can sometimes be incorporated into production aircraft, effective with the physical configuration audit which establishes the product baseline of the aircraft. However when this cannot be done due to time constraints, retrofit of the changes into already delivered aircraft requires funding through the Aircraft Modification Program. Additionally, deficiencies discovered during Fleet operations must be corrected. The unacceptable alternative to retrofitting would be multiple configurations in the Fleet, which creates maintenance and supply problems, and in many cases the mission capability of the aircraft would be adversely affected as well as reduced service life. Corrections to the following items/conditions are required:</p>		
VHF Radio (Audio Volume)	Provide for the correction of volume and reception level discrepancies. Current volume inequities between the UHF/VHF radios make the radio unintelligible and a safety concern for aircrew.	
OBOGS Upgrades (ECP 049)	Safety modifications to improve the normal and emergency aircrew oxygen supply systems. Mods address increased supply , delivery control box and software logic corrections.	
Oil Pressure Warning	Safety modifications to correct oil pressure cockpit warning indications and associated systems to improving aircrew situational awareness and overall systems operation.	
Anti-suffocation Valve	Safety modification addressing excessive force required to breath of current valave. Correction will solve unconscience aircrew air supply requirements.	
Ejection Mode Selector	Modifies Interseat Sequencing System (Ejection system) to add two additional modes allowing command ejection authority designated to each seat.	
Cockpit Improvements	Safety and Human Factors modification to the cockpit to improve aircrew efficiencies and to eliminate excessive pilot workload and other dangerous situations. Modifications include rearviewmirrors, improved cockpit storage, improved night lighting, reducing excessive ambient noise, improved trim relays, open avionic wire bundles, communication audio volume solutions, nose wheel position/positioning systems and flight instrument display issues.	
NACWS Replacement	Safety modification to replace the obsolete and unsupportable Naval Aircraft Collision Warning System (NACWS) due to FAA changes in the National Airspace System.	
Canopy System Improvement	Modifications to the current canopy system to improve anti G subsystem and canopy seal valve failures.	
Avionics Obsolescence	Provides for the identification and replacement of identified obsolescent cockpit instruments and displays.	
Braking Improvement (Anti-skid)	Safety modification to improve the short field abort and stopping distances of the aircraft through the introduction of improved braking system.	
Nose Wheel Centering	Safety modification to provide positive nose wheel centering inflight. Category 1 Deficiency,	
MLG Door Tie Rods	Retrofit of improved durability MLG door tie rod.	
MLG Sidebrace Redesign	Re-work of existing MLG drag link. Improve grease fitting access to maintainability improvement.	
Trim System Redesign	Safety modification to reduce trim actuator force limit, decrease activation speed. Results in shorter landing distances.	
Landing Gear Doors & Bellcrank	Structural fixes to gear doors & bellcrank to eliminate cracking.	
UWARS Addition to Ejection Seat	Safety modification to add UWARS to Ejection Seat. Current system lacks UWARS, restricting overwater flight operations.	
Acceptance of Ground Power	Operational modification to allow acceptance of electric power commercial ground power carts.	
Life Raft Addition to Ejection Seat	Safety modification to install Life raft to ejection seat. Current system lacks raft, restricting overwater flight operations.	
Increase Gross Weight	Structural mods to increase weight capacity. Need driven by weight additions for Anti-Skid, Life Raft, Oil Pressure warning system.	
OBOGS Low Pressure Switch	Safety modification to improve OBOGS low pressure switch. In-flight failures have caused numerous aborts.	
Condensor Blower Motor-Longer Life	Replace air conditioning blower with longer life, brushless motor, reducing life cycle costs	
Supplemental Oxygen System	Safety modification to increase volume of emergency oxygen. Class A safety board recommendation.	
GPS Receiver Upgrade-LAAS	Operational update to GPS system-allows aircraft to utilize LAAS approaches.	
OBOGS Blinker Visibility at Night	Safety modification to increase blinker visibility @ night. Deficiency noted during OPEVAL.	
Engine PMU Upgrade	Operational modification to fix engine power management unit (PMU) software. Mod required to eliminate hot-start abort conditions.	
<p>DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:</p> <p>Feb 93 received MS 0 and MS I approval, Aug 95 received MSII and LRIP approval, Dec 01 received MS III approval, and Navy IOC occurred 4th Qtr FY03.</p>		

Exhibit P-3a

Individual Modification

MODIFICATION TITLE:

JPATS Correction of Defeciciencies (OSIP 11-04)

MODELS OF SYSTEMS AFFECTED:

T-6A

TYPE MODIFICATION: PS SAFETY

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
PROCUREMENT																				
Installation Kits																				
VHF Radio (Audio Volume)					20	*	9	*												
OBOGS Upgrades (ECP-049)					18	0.1	9	0.1												
Oil Pressure Warning					13	0.1	8	0.1												
Anti-suffocation Valve							4	*												
Ejection Mode Selector							4	*												
Cockpit Improvements							3	0.1												
NACWS Replacement																				
Canopy System Improvement																				
Avionics Obsolescence																				
Braking Improvement (Anti-skid)																				
Nose Wheel Centering							2	*												
MLG Door Tie Rods							2	*												
MLG Sidebrace Redesign							2	*												
Trim System Redesign							3	*												
Landing Gear Doors & Belcrank							2	*												
UWARS Add-on to Ejection Seat							2	*												
Acceptance of Ground Power							2	*												
Life Raft Add-on to Ejection Seat							2	*												
Increase Gross Weight																				
OBOGS Low Pressure Switch																				
Condensor Blower Motor - Longer Life							1	*												
Supplemental Oxygen System																				
GPS Receiver Upgrade - LAAS																				
OBOGS Blinker Visibility at Night							3	*												
Engine PMU Upgrade																				
Installation Kits NR																				

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
Installation Equipment																				
Oil Pressure Warning					13	*	8	*												
Anti Suffocation Valve							4	*												
Ejection Mode Selector							4	*												
Cockpit Improvements							3	*												
NACWS Replacement																				
Canopy System Improvement																				
Avionics Obsolescence																				
Braking Improvement (Anti-skid)																				
Nose Wheel Centering							2	0.1												
MLG Sidebrace redesign							2	*												
Landing Gear Doors & Belcrank							2	*												
UWARS Add-on to Ejection Seat							2	*												
Life Raft Add-on to Ejection Seat							2	*												
Increase Gross Weight																				
OBOGS Low Pressure Switch																				
Condensor Blower Motor - Longer Life							1	*												
Supplemental Oxygen System																				
GPS Receiver Upgrade - LAAS																				
OBOGS Blinker Visibility at Night							3	*												
Engine PMU Upgrade																				
Installation Equipment NR																				
Engineering Change Orders																				
Data							*	*												
Training Equipment							*	*												
Support Equipment							*	*												
ILS							*	*												
Other Support							*	*												
Interim Contractor Support																				
Installation Cost					51	0.2	58	0.2												
Total Procurement					51	0.5	58	0.6												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than \$50K

Exhibit P-3a

Individual Modification

MODIFICATION TITLE: JPATS Correction of Deficiencies (OSIP 11-04)

INSTALLATION INFORMATION: VHF Radio (Audio Volume)/OBOGS Upgrades (ECP-049)/Oil Pressure Warning/Anti-suffocation Valve/Ejection Mode Selector/Cockpit Improvements/NACWS Replacement/Canopy System Improvement/Avionics Obsolescence/Braking Improvement (Antiskid)/Nose Wheel Centering/MLG Door Tie Rods/MLG Sidebrace Redesign/Trim System Redesign/Landing Gear Doors & Bellcrank/UWARS Addition to Ejection Seat/Acceptance of Ground Power/Life Raft Addition to Ejection Seat/Increase Gross Weight/OBOGS Low Pressure Switch/GPS Repeater for Simulator/Baro Altimeter Repeater for Simulator/Condensor Blower Motor-Longer Life/Supplemental Oxygen System/GPS Receiver Upgrade-LAAS/OBOGS Blinker Visibility at Night/Engine PMU Upgrade/Simulator Mods to Reflect A/C Systems

MODELS OF SYSTEMS AFFECTED: T-6A

TYPE MODIFICATION: PS SAFETY

ADMINISTRATIVE LEADTIME: * Months

PRODUCTION LEADTIME: 6 Months

CONTRACT DATES: FY 2003: _____

FY 2004: Various

FY 2005: Various

DELIVERY DATE: FY 2003: _____

FY 2004: Various

FY 2005: Various

(\$ in Millions)

Cost:	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2002 & PY () kits																				
FY 2003 () kits																				
FY 2004 () kits					51	0.2														
FY 2005 () kits							58	0.2												
FY 2006 () kits																				
FY 2007 () kits																				
FY 2008 () kits																				
FY 2009 () kits																				
To Complete () kits																				
TOTAL					51	0.2	58	0.2												

Notes:

Installation Schedule

	FY 2002 & Prior	FY 2003				FY 2004				FY 2005				FY 2006			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In							17	17	17		19	19	20				
Out							17	17	17		19	19	20				

	FY 2007				FY 2008				FY 2009				To Complete	TOTAL
	1	2	3	4	1	2	3	4	1	2	3	4		
In														
Out														